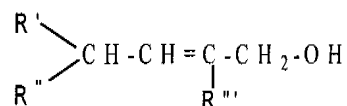


## AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method of making a flexibilized resorcinolic resin solution, comprising:

(a) contacting one or more phenolic compounds with approximately 0.05 to 0.4 mole, per mole of the phenolic compound of an unsaturated dihydroxy compound having the formula:

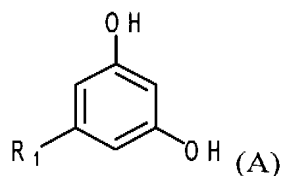


where R', R'', and R''' are individually a hydrogen or an aliphatic straight or branched alkyl, provided that R' and R'' cannot both be hydrogen at the same time, and that one of R' and R'' is or includes an OH group in the presence of an acid catalyst to obtain a reaction mixture; and

(b) contacting the reaction mixture with about 0.1 to about 0.6 mole of an aldehyde per mole of phenolic compound.

2. (Previously Presented) The method of claim 1, wherein the phenolic compound is selected from m-cresol, 3,5-dimethyl phenol, resorcinol, 5-methyl resorcinol, 5-ethyl resorcinol, 5-propyl resorcinol, m-amino phenol, 2-methyl resorcinol, 4-methyl resorcinol, 4-ethyl resorcinol, 4-propyl resorcinol, phloroglucinol, or a mixture thereof.

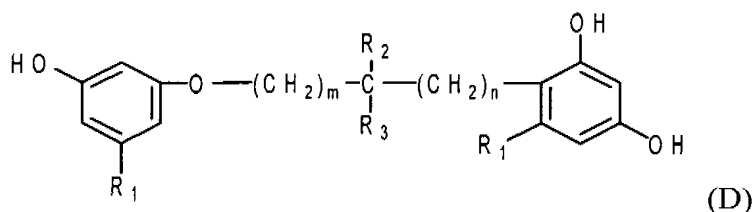
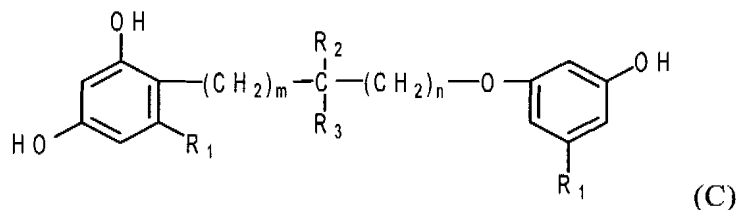
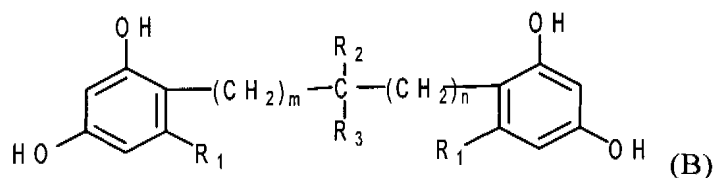
3. (Original) The method of claim 1, wherein the phenolic compound is represented by the following formula (A):



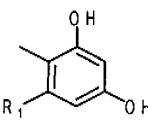
wherein R<sub>1</sub> represents a radical selected from the group consisting of hydrogen, hydroxyl and an alkyl radical having 1 to 3 carbon atoms.

4. (Original) The method of claim 1, wherein the acid catalyst is selected from oxalic acid, sulfuric acid, benzenesulfonic acid, benzenedisulfonic acid, p-toluenesulfonic acid, phosphoric acid, or a mixture thereof.

5. (Original) The method of claim 1, wherein the reaction mixture comprises at least one compound having an alkylene ether linkage.
6. (Original) The method of claim 1, wherein the contacting is carried out at a temperature in the range of between about 120° C and about 150° C.
7. (Original) The method of claim 1, wherein the unsaturated dihydroxy compound is 1,4-dihydroxy-2-butene.
8. (Original) The method of claim 1, wherein the reaction mixture comprises one or more compounds as represented by the following structures (B, C and D).



where  $R_1$  and  $R_2$  are independently  $-CH_3$ ,  $-CH_2CH_3$ , or  $-CH_2CH_2CH_3$ ; and  $R_3$  is

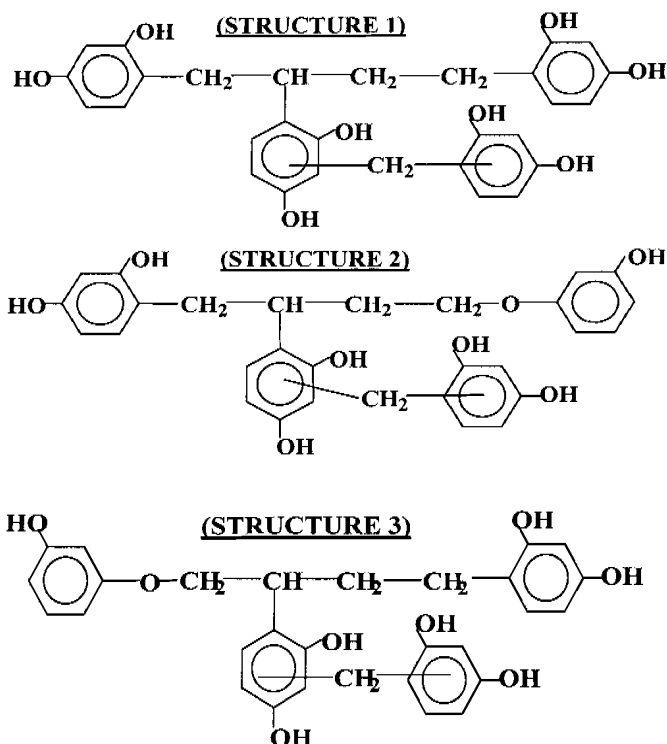
either  $-H$  or  and  $m=0, 1$  or  $2$  and  $n = 0, 1$  or  $2$ .

9. (Previously Presented) The method of claim 1, wherein the aldehyde is selected from the group consisting of formaldehyde, acetaldehyde, propionaldehyde, n-butyraldehyde, n-valeraldehyde, and mixtures thereof.
10. (Original) The method of claim 1, wherein the molar ratio of the phenolic compound to the unsaturated dihydroxy is between about 1:0.1 to about 1:0.3.

11. (Original) The method of claim 1, wherein the molar ratio of the phenolic compound to the aldehyde is between about 1:0.35 to about 1:0.45.

12-21. (Canceled).

22. (Original) A flexibilized resorcinolic novolak resin, comprising one or more compounds represented by the following structures:



23-25. (Canceled).

26. (Previously Presented). An adhesive composition, comprising a flexibilized resorcinol resin prepared by the method of claim 1.

27. (Previously Presented). The adhesive composition of claim 26, wherein the adhesive composition is a single-step adhesive composition comprising an aqueous mixture of (a) the flexibilized resorcinol resin (b) a basic solution; (c) an aqueous formaldehyde solution; (d) a vinyl pyridine SBR copolymer latex; (e) water and (f) optionally one or more adhesion promoter additive compounds selected from blocked polyisocyanates, water soluble or dispersible aliphatic or aromatic epoxy compounds and organosilanes.

28. (Previously Presented) The adhesive composition of claim 27, further comprising an adhesive selected from polyepoxide compound and blocked polyisocyanates.
29. (Previously Presented) The adhesive composition of claim 28, wherein the blocked polyisocyanate compound is selected from addition reaction products of a polyisocyanate compound with a blocking agent comprising at least one member selected from caprolactam, phenolic compounds or oxime compounds.
30. (Previously Presented) A novolak resin prepared by the method of claim 1.
31. (Previously Presented) A method of making a flexibilized resorcinolic resin solution, comprising:
- (a) contacting one or more phenolic compounds with approximately 0.05 to 0.4 mole of an aliphatic dialdehyde compound per mole of the phenolic compound, in the presence of an acid catalyst to obtain a reaction mixture; and
  - (b) contacting the reaction mixture with about 0.1 to about 0.6 mole of an aldehyde per mole of phenolic compound, the aldehyde being different from the aliphatic dialdehyde to make a novolak type resin.
32. (Previously Presented) The method of claim 31, wherein the dialdehyde compound is selected from malonaldehyde, succinaldehyde, glutaraldehyde, adipaldehyde and a mixture thereof.
33. (Previously Presented) The method of claim 31, wherein the molar ratio of the phenolic compound to the dialdehyde compound is between about 1:0.05 and about 1:0.3.
34. (Previously Presented) An adhesive composition, comprising a flexibilized resorcinol resin prepared by the method of claim 31.
35. (Previously Presented) The adhesive composition of claim 34, wherein the adhesive composition is a single-step adhesive composition comprising an aqueous mixture of (a) the flexibilized resorcinol resin (b) a basic solution; (c) an aqueous formaldehyde solution; (d) a vinyl pyridine SBR copolymer latex; (e) water and (f) optionally one or more adhesion promoter additive compounds selected from the group consisting of blocked

polyisocyanates, water soluble or dispersible aliphatic or aromatic epoxy compounds and organosilanes.

36. (Previously Presented) The adhesive composition of claim 35, further comprising an adhesive selected from the group consisting of polyepoxide compound and blocked polyisocyanates.

37. (Previously Presented) The adhesive composition of claim 36, wherein the blocked polyisocyanate compound is selected from addition reaction products of a polyisocyanate compound with a blocking agent comprising at least one member selected from caprolactam, phenolic compounds or oxime compounds.

38. (Previously Presented) A novolak resin prepared by the method of claim 31.

39. (Previously Presented) A vulcanizable rubber composition comprising a flexibilized resorcinol resin prepared by the method of claim 1.

40. (Previously Presented) A vulcanizable rubber composition of claim 39, wherein the rubber is a natural rubber, polybutadiene rubber or rubbery butadiene-styrene copolymer.

41. (Previously Presented) A vulcanizable rubber composition of claim 39, wherein the rubber is a nitrile rubber, chloroprene rubber, polyisoprene, acrylic rubber, ethylene-propylene-diene monomer (EPDM) rubber or isoprene-acrylonitrile rubber.

42. (Previously Presented) A tire comprising the vulcanizable rubber composition of claim 39.

43. (Previously Presented) A vulcanizable rubber composition comprising a flexibilized resorcinol resin prepared by the method of claim 31.

44. (New) A vulcanizable rubber composition of claim 43, wherein the rubber is a natural rubber, polybutadiene rubber or rubbery butadiene-styrene copolymer.

45. (Previously Presented) A vulcanizable rubber composition of claim 43, wherein the rubber is a nitrile rubber, chloroprene rubber, polyisoprene, acrylic rubber, ethylene-propylene-diene monomer (EPDM) rubber or isoprene-acrylonitrile rubber.

46. (Previously Presented) A tire comprising the vulcanizable rubber composition of claim 43.